

CLAIMS

What is claimed is:

1. A port light assembly comprising:
 - an exterior frame configured for insertion into a hole in a vessel hull;
 - an interior frame configured for placement over the exterior frame on the opposite side of the hull as the exterior frame;
 - an innermost frame having a pane of glass retained therein;
 - means for connecting the innermost frame to the interior frame;
 - means for creating a watertight connection between the exterior frame and the interior frame without the use of adhesive materials and without the need to place additional holes in the vessel hull;
 - means for creating a watertight seal between the exterior frame and the exterior of the vessel hull without the use of caulk and without the use of adhesives; and
 - means for creating a watertight seal between the innermost frame and the exterior frame.
2. The assembly of claim 1 wherein the exterior frame comprises a spigot having a first end, a second end, an inner surface, and an outer surface;
 - the exterior frame further comprising a finish ring having an interior surface and an exterior surface;
 - the spigot being configured for insertion into the hole in the vessel hull;
 - the finish ring extending at a right angle from the outer surface of the spigot in a flange-like manner at the second end of the spigot and being configured such that when the first end of

the spigot is fully inserted into the vessel hull, the finish ring is parallel to and adjacent to the surface of the vessel hull; and

the interior frame has a bulkhead surface, a cabin surface, and is configured for placement around the spigot such that the interior frame rests against a bulkhead on the interior of the vessel hull.

3. The assembly of claim 2 wherein the exterior frame, the interior frame, and the innermost frame are constructed from plastic; and

the finish ring, the interior frame, and the innermost frame are reinforced by thin pieces of non-corrosive metal.

4. The assembly of claim 3 wherein the finish ring and the interior frame each have a plurality of corresponding holes communicating therethrough;

the thin pieces of metal used to reinforce the finish ring have a plurality of holes communicating therethrough that correspond to the holes communicating through the finish ring and are adapted for the placement of a carriage head bolt;

the thin pieces of metal that reinforce the interior frame have a plurality of holes communicating therethrough that correspond to the holes communicating through the interior frame;

the assembly further comprises a plurality of carriage head bolts having a threaded interior cavity, a plurality of flexible O-rings that are sized such that the carriage head bolts can

be inserted into the O-rings, and a plurality of truss head fasteners that are threaded for connection to the carriage head bolts; and

the means for creating a watertight connection between the exterior frame and the interior frame without the use of adhesive materials and without the need to place additional holes in the vessel hull is to place the spigot through the hole in the vessel hull such that the finish ring covers the edges of the hole but the holes communicating through the spigot ring and the reinforcing metal are not obstructed by the vessel hull, placing the interior frame around the spigot on the inside of the vessel hull such that the holes communicating through the interior frame and reinforcing metal are aligned with the holes communicating through the finish ring, placing a carriage head bolt that has been inserted into a O-ring through each hole in the finish ring and reinforcing metal on the exterior of the hull, placing a truss head fastener through each hole communicating through the interior frame and reinforcing metal on the interior of the hull, and threadedly engaging the truss headed fasteners with the carriage head bolts.

5. The assembly of claim 4 wherein the means for creating a watertight seal between the exterior frame and the exterior of the vessel hull without the use of caulk and without the use of adhesives is a flexible gasket connected to the interior surface of the finish ring such that it will be in contact with the exterior of the vessel hull and create a watertight seal between the vessel hull and the finish ring when the exterior frame and the interior frame are securely connected to each other.

6. The assembly of claim 2 wherein the first end of the spigot has a raised sealing portion extending from the inner surface thereof, the inner surface of the spigot further having a pair of grooves that begin at the sealing portion and extend to the second end of the spigot such that water is drained from the spigot via the grooves.

7. The assembly of claim 6 wherein the innermost frame has a top edge, a bottom edge, an outside surface, an inside surface, and is hingedly connected to the interior frame such that the innermost frame can be rotated between an open position and a closed position;

the pane of glass is secured around its edges by a flexible gasket ring that is affixed to the innermost frame such that when the innermost frame is in a closed position, the flexible gasket ring contacts the raised sealing portion on the first end of the spigot; and

the means for creating a watertight seal between the innermost frame and the exterior frame is to tightly secure the innermost frame in a closed position such that the gasket ring is compressed between the sealing portion of the spigot and the innermost frame.

8. The assembly of claim 7 wherein the innermost frame has a pair of hinge plates attached to the top edge thereof and is hingedly connected to the interior frame by a pair of adjustable hinge devices;

each of the hinge plates being constructed from a non-corrosive metal and having a pair of hinge ears extending therefrom;

each of the hinge devices being constructed from a non-corrosive metal and being comprised of a tubular hinge having a hollow interior, an exterior, and a threaded hinge post

extending at a right angle from the exterior thereof; a hinge pin; a hinge pin screw; a shouldered hinge adjustment nut; a washer spring; a hinge retention plate having a hinge post hole and a plurality of screw holes communicating therethrough; and a plurality of retention plate screws;

the hinge pin having a flanged end and a threaded interior cavity, for threaded engagement with the hinge pin screw, at the end of the pin that is opposite the flanged end;

the interior frame of the assembly having a pair of hinge adjustment holes communicating therethrough that are complimentary to the location of the hinge plates on the innermost frame;

the interior frame further having a pair of recessed areas on the bulkhead surface thereof, each recessed area being configured for insertion of the shouldered hinge adjustment nut, the spring washer, and the hinge retention plate, such that the shouldered hinge adjustment nut can be inserted into the recessed area and protrude through the hinge adjustment hole and rotate while still being retained in the recessed area of the interior frame, the washer spring can be placed in the recessed area adjacent to the shouldered hinge adjustment nut, the retention plate can be placed in the recessed area such that it is level with the bulkhead surface of the interior frame, and the retention plate screws are placed through the retention plate screw holes and threadedly engaged with a threaded hole communicating into the interior frame;

whereby when the shouldered hinge adjustment nut is inserted into the recessed area such that it protrudes through the hinge adjustment hole and rotates while still being retained in the recessed area of the interior frame; the washer spring is placed in the recessed area adjacent to the shouldered hinge adjustment nut; the retention plate is placed in the recessed area such that it is level with the bulkhead surface of the interior frame; the retention plate screws are placed

through the retention plate screw holes and threadedly engaged with the interior frame; the hinge post is threadedly engaged with the shouldered hinge adjustment nut; the hinge pin is inserted into one hinge ear, through the hinge, and into the other hinge ear; and

the hinge retention screw is threadedly engaged with the hinge pin, the hinge can be adjusted upwardly and downwardly, relative to the interior frame by rotating the shouldered hinge adjustment nut.

9. The assembly of claim 8 wherein the innermost frame has a pair of latch striker plates attached to the bottom edge thereof and the innermost frame can be secured in a closed position by a pair of adjustable window latches;

each of the latch striker plates being constructed from a non-corrosive metal and having a latch stop post protruding therefrom;

each of the latches being constructed from a non-corrosive metal and being comprised of a hollow latch tube having a lip extending into the interior at one end thereof, and also having a latch lever and a latch dog extending from the exterior surface thereof, at the end with the lip, such that the latch lever and latch dog are at a right angle to each other; a latch adjustment post having a hollow end and a threaded end; a latch locking nut; a latch tension spring; a latch tightening screw; a shouldered latch adjustment nut; a washer spring; a latch retention plate having a latch post hole and a plurality of screw holes communicating therethrough; and a plurality of retention plate screws;

the hollow end of the latch adjustment post having a threaded interior cavity, for threaded engagement with the latch tightening screw and the exterior surface of the latch

adjustment post being smooth at the hollow such that the smooth surface extends for approximately half the length of the adjustment post and the remainder of the adjustment post is threaded for engagement with the shouldered latch adjustment nut;

the interior frame of the assembly having a pair of latch adjustment holes communicating therethrough that are complimentary to the location of the striker plates on the innermost frame;

the interior frame further having a pair of recessed areas on the bulkhead surface thereof, each recessed area being configured for insertion of the shouldered latch adjustment nut, the spring washer, and the latch retention plate, such that the shouldered latch adjustment nut can be inserted into the recessed area and protrude through the latch adjustment hole and rotate while still being retained in the recessed area of the interior frame, the washer spring can be placed in the recessed area adjacent to the shouldered latch adjustment nut, the latch retention plate can be placed in the recessed area such that it is level with the bulkhead surface of the interior frame, and the retention plate screws are placed through the screw holes and threadedly engaged with a threaded hole communicating into the interior frame;

whereby when the shouldered latch adjustment nut is inserted into the recessed area such that it protrudes through the latch adjustment hole and rotates while still being retained in the recessed area of the interior frame; the washer spring is placed in the recessed area adjacent to the shouldered latch adjustment nut; the latch retention plate is placed in the recessed area such that it is level with the bulkhead surface of the interior frame; the retention plate screws are placed through the screw holes and threadedly engaged with the interior frame; the locking nut is threadedly engaged with the latch adjustment post; the latch post is threadedly engaged with the shouldered latch adjustment nut; the latch tension spring is placed in the hollow latch tube; the

hollow latch tube is placed on the latch adjustment post such that the latch dog rests on the latch striker plate against the latch stop post; the latch tightening screw is inserted into the hollow latch tube and threadedly engaged with the latch adjustment post, the latch can be adjusted upwardly and downwardly, relative to the interior frame by rotating the shouldered latch adjustment nut, the latch can be secured relative to the interior frame by rotating the latch locking nut until it is in contact with the shouldered latch adjustment nut, and the latch can be tightened by turning the latch tightening screw thereby securing the innermost frame in a down position; and

the latch lever can be rotated one hundred and eighty degrees to release the innermost frame from the secured position so that the innermost frame can be rotated upwardly.

10. The assembly of claim 1 further comprising a screen configured for placement on the exterior frame from the interior of the vessel hull.

11. A port light assembly comprising:

a spigot having a first end, a second end, an inner surface, and an outer surface; the exterior frame further comprising a finish ring having an interior surface and an exterior surface;

the spigot being configured for insertion into a hole in a vessel hull;

the first end of the spigot having a raised sealing portion extending from inner surface thereof;

the finish ring extending at a right angle from the outer surface of the spigot in a flange-like manner at the second end of the spigot and being configured such that when the first end of

the spigot is fully inserted into the vessel hull, the finish ring is parallel to and adjacent to the surface of the vessel hull;

the finish ring having plurality of fastener holes communicating therethrough and a flexible gasket connected to the interior surface thereof;

an interior frame having a bulkhead surface and a cabin surface

the interior frame being configured for placement around the spigot such that the interior frame rests against a bulkhead on the interior of the vessel hull;

the interior frame also having a plurality of fastener holes communicating therethrough such that the fastener holes on the interior frame are aligned with the fastener holes on the finish ring when the interior frame is placed around the spigot;

an innermost frame having a top edge, a bottom edge, an outside surface, an inside surface, and a pane of glass retained therein;

the innermost frame being connected, at the top edge thereof, to the interior frame by a pair of adjustable hinges such that the innermost frame can be rotated upwardly to an open position or downwardly to a closed position;

the adjustable hinges being threadedly connected to the interior frame;

the pane of glass being secured around its edges by a flexible gasket ring that is affixed to the innermost frame such that when the assembly is installed in a vessel and the innermost frame is in a closed position, the flexible gasket ring contacts the raised sealing portion on the first end of the spigot;

a pair of adjustable latches, that are threadedly connected to the interior frame, for securing the innermost frame in a down position;

a plurality of threaded fasteners;

whereby the spigot is placed through a hole in a vessel hull such that the gasket on the finish ring is in contact with the hull; the interior frame is placed around the spigot such that the fastener holes in the finish ring and the fastener holes in the interior frame are aligned with each other at the interior edge of the hole in the vessel hull; the interior frame and the finish ring are tightly connected by placing threaded connectors in the fastener holes and tightening the connectors; the innermost frame is in a closed position; and

the latches are securing the inner frame in a closed position; the assembly creates a watertight seal with the vessel hull without the use of caulks or adhesives on the hull and without the use of additional fastener holes communicating through the vessel hull.

12. The assembly of claim 11 wherein the exterior frame, the interior frame, and the innermost frame are constructed from plastic;

the finish ring, the interior frame, and the innermost frame are reinforced by thin pieces of non-corrosive metal;

the finish ring has a plurality of recessed areas on the exterior surface thereof for placement of the thin pieces of metal;

the thin pieces of metal used to reinforce the finish ring have a plurality of holes communicating therethrough that correspond to the fastener holes communicating through the finish ring and the holes in the metal are adapted for the placement of a carriage head bolt;

the interior frame has a plurality of recessed areas on the cabin surface thereof for placement of the thin pieces of metal;

the thin pieces of metal that reinforce the interior frame have a plurality of holes communicating therethrough that correspond to the fastener holes communicating through the interior frame;

the plurality of threaded fasteners are a plurality of carriage head bolts having a threaded interior cavity, a plurality of flexible O-rings that are sized such that the carriage head bolts can be inserted into the O-rings, and a plurality of truss head fasteners that are threaded for connection to the carriage head bolts;

whereby the exterior frame is threadedly connected to the interior frame, such that the connection is watertight, by placing the spigot through the hole in the vessel hull such that the finish ring covers the edges of the hole but the holes communicating through the spigot ring and the reinforcing metal are not obstructed by the vessel hull, placing the interior frame around the spigot on the inside of the vessel hull such that the holes communicating through the interior frame and reinforcing metal are aligned with the holes communicating through the finish ring, placing a carriage head bolt that has been inserted into a O-ring through each hole in the finish ring and reinforcing metal on the exterior of the hull, placing a truss head fastener through each hole communicating through the interior frame and reinforcing metal on the interior of the hull; and

threadedly engaging the truss headed fasteners with the carriage head bolts.

13. The assembly of claim 11 the innermost frame has a pair of hinge plates attached to the top edge thereof and is hingedly connected to the interior frame by a pair of adjustable hinge devices;

each of the hinge plates being constructed from a non-corrosive metal and having a pair of hinge ears extending therefrom;

each of the hinge devices being constructed from a non-corrosive metal and being comprised of a tubular hinge having a hollow interior, an exterior, and a threaded hinge post extending at a right angle from the exterior thereof; a hinge pin; a hinge pin screw; a shouldered hinge adjustment nut; a washer spring; a hinge retention plate having a hinge post hole and a plurality of screw holes communicating therethrough; and a plurality of retention plate screws;

the hinge pin having a flanged end and a threaded interior cavity, for threaded engagement with the hinge pin screw, at the end of the pin that is opposite the flanged end;

the interior frame of the assembly having a pair of hinge adjustment holes communicating therethrough that are complimentary to the location of the hinge plates on the innermost frame;

the interior frame further having a pair of recessed areas on the bulkhead surface thereof, each recessed area being configured for insertion of the shouldered hinge adjustment nut, the spring washer, and the hinge retention plate, such that the shouldered hinge adjustment nut can be inserted into the recessed area and protrude through the hinge adjustment hole and rotate while still being retained in the recessed area of the interior frame, the washer spring can be placed in the recessed area adjacent to the shouldered hinge adjustment nut, the retention plate can be placed in the recessed area such that it is level with the bulkhead surface of the interior frame, and the retention plate screws are placed through the retention plate screw holes and threadedly engaged with a threaded hole communicating into the interior frame;

whereby when the shouldered hinge adjustment nut is inserted into the recessed area such that it protrudes through the hinge adjustment hole and rotates while still being retained in the recessed area of the interior frame; the washer spring is placed in the recessed area adjacent to the shouldered hinge adjustment nut; the retention plate is placed in the recessed area such that it is level with the bulkhead surface of the interior frame; the retention plate screws are placed through the retention plate screw holes and threadedly engaged with the interior frame; the hinge post is threadedly engaged with the shouldered hinge adjustment nut; the hinge pin is inserted into one hinge ear, through the hinge, and into the other hinge ear; and

the hinge retention screw is threadedly engaged with the hinge pin, the hinge can be adjusted upwardly and downwardly, relative to the interior frame by rotating the shouldered hinge adjustment nut.

14. The assembly of claim 11 wherein the innermost frame has a pair of latch striker plates attached to the bottom edge thereof and the innermost frame can be secured in a closed position by a pair of adjustable window latches;

each of the latch striker plates being constructed from a non-corrosive metal and having a latch stop post protruding therefrom;

each of the latches being constructed from a non-corrosive metal and being comprised of a hollow latch tube having a lip extending into the interior at one end thereof, and also having a latch lever and a latch dog extending from the exterior surface thereof, at the end with the lip, such that the latch lever and latch dog are at a right angle to each other; a latch adjustment post having a hollow end and a threaded end; a latch locking nut; a latch tension spring; a latch

tightening screw; a shouldered latch adjustment nut; a washer spring; a latch retention plate having a latch post hole and a plurality of screw holes communicating therethrough; and a plurality of retention plate screws;

the hollow end of the latch adjustment post having a threaded interior cavity , for threaded engagement with the latch tightening screw and the exterior surface of the latch adjustment post being smooth at the hollow such that the smooth surface extends for approximately half the length of the adjustment post and the remainder of the adjustment post is threaded for engagement with the shouldered latch adjustment nut;

the interior frame of the assembly having a pair of latch adjustment holes communicating therethrough that are complimentary to the location of the striker plates on the innermost frame;

the interior frame further having a pair of recessed areas on the bulkhead surface thereof, each recessed area being configured for insertion of the shouldered latch adjustment nut, the spring washer, and the latch retention plate, such that the shouldered latch adjustment nut can be inserted into the recessed area and protrude through the latch adjustment hole and rotate while still being retained in the recessed area of the interior frame, the washer spring can be placed in the recessed area adjacent to the shouldered latch adjustment nut, the latch retention plate can be placed in the recessed area such that it is level with the bulkhead surface of the interior frame, and the retention plate screws are placed through the screw holes and threadedly engaged with a threaded hole communicating into the interior frame;

whereby when the shouldered latch adjustment nut is inserted into the recessed area such that it protrudes through the latch adjustment hole and rotates while still being retained in the recessed area of the interior frame; the washer spring is placed in the recessed area adjacent to

the shouldered latch adjustment nut; the latch retention plate is placed in the recessed area such that it is level with the bulkhead surface of the interior frame; the retention plate screws are placed through the screw holes and threadedly engaged with the interior frame; the locking nut is threadedly engaged with the latch adjustment post; the latch post is threadedly engaged with the shouldered latch adjustment nut; the latch tension spring is placed in the hollow latch tube; the hollow latch tube is placed on the latch adjustment post such that the latch dog rests on the latch striker plate against the latch stop post; the latch tightening screw is inserted into the hollow latch tube and threadedly engaged with the latch adjustment post, the latch can be adjusted upwardly and downwardly, relative to the interior frame by rotating the shouldered latch adjustment nut , the latch can be secured relative to the interior frame by rotating the latch locking nut until it is in contact with the shouldered latch adjustment nut, and the latch can be tightened by turning the latch tightening screw thereby securing the innermost frame in a down position; and

the latch lever can be rotated one hundred and eighty degrees to release the innermost frame from the secured position so that the innermost frame can be rotated upwardly.

15. The assembly of claim 11 further comprising a flexible screen frame having a screen secured therein and being configured for placement on the spigot from the interior of the vessel hull.

16. The assembly of claim 11 further comprising a spacing frame configured for placement over the spigot from the interior of a vessel hull;

whereby the frame can be placed over the spigot prior to placing the interior frame over the spigot.

17. A port light assembly comprising:

a spigot having a first end, a second end, an inner surface, and an outer surface; the exterior frame further comprising a finish ring having an interior surface and an exterior surface;

the spigot being configured for insertion into a hole in a vessel hull;

the first end of the spigot having a raised sealing portion extending from inner surface thereof;

the finish ring extending at a right angle from the outer surface of the spigot in a flange-like manner at the second end of the spigot and being configured such that when the first end of the spigot is fully inserted into the vessel hull, the finish ring is parallel to and adjacent to the surface of the vessel hull;

the finish ring having plurality of fastener holes communicating therethrough and a flexible gasket connected to the interior surface thereof;

an interior frame having a bulkhead surface and a cabin surface

the interior frame being configured for placement around the spigot such that the interior frame rests against a bulkhead on the interior of the vessel hull;

the interior frame also having a plurality of fastener holes communicating therethrough such that the fastener holes on the interior frame are aligned with the fastener holes on the finish ring when the interior frame is placed around the spigot;

an innermost frame having a top edge, a bottom edge, an outside surface, an inside surface, and a pane of glass retained therein;

the innermost frame being connected, at the top edge thereof, to the interior frame by a pair of adjustable hinges such that the innermost frame can be rotated upwardly to an open position or downwardly to a closed position;

the adjustable hinges being threadedly connected to the interior frame;

the pane of glass being secured around its edges by a flexible gasket ring that is affixed to the innermost frame such that when the assembly is installed in a vessel and the innermost frame is in a closed position, the flexible gasket ring contacts the raised sealing portion on the first end of the spigot;

a pair of adjustable latches, that are threadedly connected to the interior frame, for securing the innermost frame in a down position;

the exterior frame, the interior frame, and the innermost frame being constructed from plastic;

the finish ring, the interior frame, and the innermost frame being reinforced by thin pieces of non-corrosive metal;

the finish ring having a plurality of recessed areas on the exterior surface thereof for placement of the thin pieces of metal;

the thin pieces of metal used to reinforce the finish ring having a plurality of holes communicating therethrough that correspond to the fastener holes communicating through the finish ring and the holes in the metal being adapted for the placement of a carriage head bolt;

the interior frame having a plurality of recessed areas on the cabin surface thereof for placement of the thin pieces of metal;

the thin pieces of metal that reinforce the interior frame having a plurality of holes communicating therethrough that correspond to the fastener holes communicating through the interior frame;

a plurality of carriage head bolts having a threaded interior cavity;

a plurality of flexible O-rings being sized such that the carriage head bolts can be inserted into the O-rings;

a plurality of truss head fasteners that are threaded for connection to the carriage head bolts;

whereby the exterior frame is threadedly connected to the interior frame by placing the spigot through the hole in the vessel hull such that the finish ring covers the edges of the hole but the holes communicating through the spigot ring and the reinforcing metal are not obstructed by the vessel hull and the gasket on the interior surface of the finish ring is in contact with the vessel hull; placing the interior frame around the spigot on the inside of the vessel hull such that the holes communicating through the interior frame and reinforcing metal are aligned with the holes communicating through the finish ring; placing a carriage head bolt that has been inserted into a O-ring through each hole in the finish ring and reinforcing metal on the exterior of the hull, placing a truss head fastener through each hole communicating through the interior frame and reinforcing metal on the interior of the hull; and

threadedly engaging the truss headed fasteners with the carriage head bolts, thereby creating a watertight seal between the assembly and the vessel hull without the use of caulks and without the need to place additional fastener holes in the vessel hull.

18. The assembly of claim 17 the innermost frame has a pair of hinge plates attached to the top edge thereof and is hingedly connected to the interior frame by a pair of adjustable hinge devices;

each of the hinge plates being constructed from a non-corrosive metal and having a pair of hinge ears extending therefrom;

each of the hinge devices being constructed from a non-corrosive metal and being comprised of a tubular hinge having a hollow interior, an exterior, and a threaded hinge post extending at a right angle from the exterior thereof; a hinge pin; a hinge pin screw; a shouldered hinge adjustment nut; a washer spring; a hinge retention plate having a hinge post hole and a plurality of screw holes communicating therethrough; and a plurality of retention plate screws;

the hinge pin having a flanged end and a threaded interior cavity, for threaded engagement with the hinge pin screw, at the end of the pin that is opposite the flanged end;

the interior frame of the assembly having a pair of hinge adjustment holes communicating therethrough that are complimentary to the location of the hinge plates on the innermost frame;

the interior frame further having a pair of recessed areas on the bulkhead surface thereof, each recessed area being configured for insertion of the shouldered hinge adjustment nut, the spring washer, and the hinge retention plate, such that the shouldered hinge adjustment nut can

be inserted into the recessed area and protrude through the hinge adjustment hole and rotate while still being retained in the recessed area of the interior frame, the washer spring can be placed in the recessed area adjacent to the shouldered hinge adjustment nut, the retention plate can be placed in the recessed area such that it is level with the bulkhead surface of the interior frame, and the retention plate screws are placed through the retention plate screw holes and threadedly engaged with a threaded hole communicating into the interior frame;

whereby when the shouldered hinge adjustment nut is inserted into the recessed area such that it protrudes through the hinge adjustment hole and rotates while still being retained in the recessed area of the interior frame; the washer spring is placed in the recessed area adjacent to the shouldered hinge adjustment nut; the retention plate is placed in the recessed area such that it is level with the bulkhead surface of the interior frame; the retention plate screws are placed through the retention plate screw holes and threadedly engaged with the interior frame; the hinge post is threadedly engaged with the shouldered hinge adjustment nut; the hinge pin is inserted into one hinge ear, through the hinge, and into the other hinge ear; and

the hinge retention screw is threadedly engaged with the hinge pin, the hinge can be adjusted upwardly and downwardly, relative to the interior frame by rotating the shouldered hinge adjustment nut.

19. The assembly of claim 17 wherein the innermost frame has a pair of latch striker plates attached to the bottom edge thereof and the innermost frame can be secured in a closed position by a pair of adjustable window latches;

each of the latch striker plates being constructed from a non-corrosive metal and having a latch stop post protruding therefrom;

each of the latches being constructed from a non-corrosive metal and being comprised of a hollow latch tube having a lip extending into the interior at one end thereof, and also having a latch lever and a latch dog extending from the exterior surface thereof, at the end with the lip, such that the latch lever and latch dog are at a right angle to each other; a latch adjustment post having a hollow end and a threaded end; a latch locking nut; a latch tension spring; a latch tightening screw; a shouldered latch adjustment nut; a washer spring; a latch retention plate having a latch post hole and a plurality of screw holes communicating therethrough; and a plurality of retention plate screws;

the hollow end of the latch adjustment post having a threaded interior cavity , for threaded engagement with the latch tightening screw and the exterior surface of the latch adjustment post being smooth at the hollow such that the smooth surface extends for approximately half the length of the adjustment post and the remainder of the adjustment post is threaded for engagement with the shouldered latch adjustment nut;

the interior frame of the assembly having a pair of latch adjustment holes communicating therethrough that are complimentary to the location of the striker plates on the innermost frame;

the interior frame further having a pair of recessed areas on the bulkhead surface thereof, each recessed area being configured for insertion of the shouldered latch adjustment nut, the spring washer, and the latch retention plate, such that the shouldered latch adjustment nut can be inserted into the recessed area and protrude through the latch adjustment hole and rotate while still being retained in the recessed area of the interior frame, the washer spring can be placed in

the recessed area adjacent to the shouldered latch adjustment nut, the latch retention plate can be placed in the recessed area such that it is level with the bulkhead surface of the interior frame, and the retention plate screws are placed through the screw holes and threadedly engaged with a threaded hole communicating into the interior frame;

whereby when the shouldered latch adjustment nut is inserted into the recessed area such that it protrudes through the latch adjustment hole and rotates while still being retained in the recessed area of the interior frame; the washer spring is placed in the recessed area adjacent to the shouldered latch adjustment nut; the latch retention plate is placed in the recessed area such that it is level with the bulkhead surface of the interior frame; the retention plate screws are placed through the screw holes and threadedly engaged with the interior frame; the locking nut is threadedly engaged with the latch adjustment post; the latch post is threadedly engaged with the shouldered latch adjustment nut; the latch tension spring is placed in the hollow latch tube; the hollow latch tube is placed on the latch adjustment post such that the latch dog rests on the latch striker plate against the latch stop post; the latch tightening screw is inserted into the hollow latch tube and threadedly engaged with the latch adjustment post, the latch can be adjusted upwardly and downwardly, relative to the interior frame by rotating the shouldered latch adjustment nut, the latch can be secured relative to the interior frame by rotating the latch locking nut until it is in contact with the shouldered latch adjustment nut, and the latch can be tightened by turning the latch tightening screw thereby securing the innermost frame in a down position; and

the latch lever can be rotated one hundred eighty degrees to release the innermost frame from the secured position so that the innermost frame can be rotated upwardly.

20. The assembly of claim 17 further comprising a flexible screen frame having a screen secured therein and being configured for placement on the spigot from the interior of the vessel hull.

21. The assembly of claim 17 further comprising a spacing frame configured for placement over the spigot from the interior of a vessel hull;
whereby the frame can be placed over the spigot prior to placing the interior frame over the spigot.

22. An adjustable hinge for a port light having an interior frame and an innermost frame having a pane of glass retained therein, the hinge comprising:

a hinge plate attached to one edge of the innermost frame and hingedly connected to the interior frame by an adjustable hinge device;

the hinge plate being constructed from a non-corrosive metal and having a pair of hinge ears extending therefrom;

the hinge device being constructed from a non-corrosive metal and being comprised of a tubular hinge having a hollow interior, an exterior, and a threaded hinge post extending at a right angle from the exterior thereof; a hinge pin; a hinge pin screw; a shouldered hinge adjustment nut; a washer spring; a hinge retention plate having a hinge post hole and a plurality of screw holes communicating therethrough; and a plurality of retention plate screws;

the hinge pin having a flanged end and a threaded interior cavity, for threaded engagement with the hinge pin screw, at the end of the pin that is opposite the flanged end;

whereby the interior frame has at least one hinge adjustment hole communicating therethrough that is complimentary to the location of the hinge plate on the innermost frame; and at least one recessed area configured for insertion of the shouldered hinge adjustment nut, the spring washer, and the hinge retention plate, such that the shouldered hinge adjustment nut can be inserted into the recessed area and protrude through the hinge adjustment hole and rotate while still being retained in the recessed area of the interior frame, the washer spring can be placed in the recessed area adjacent to the shouldered hinge adjustment nut, the retention plate can be placed in the recessed area such that it is level with the bulkhead surface of the interior frame, and the retention plate screws are placed through the retention plate screw holes and threadedly engaged with a threaded hole communicating into the interior frame; such when the shouldered hinge adjustment nut is inserted into the recessed area so that it protrudes through the hinge adjustment hole and rotates while still being retained in the recessed area of the interior frame; the washer spring is placed in the recessed area adjacent to the shouldered hinge adjustment nut; the retention plate is placed in the recessed area such that it is level with the surface of the interior frame; the retention plate screws are placed through the retention plate screw holes and threadedly engaged with the interior frame; the hinge post is threadedly engaged with the shouldered hinge adjustment nut; the hinge pin is inserted into one hinge ear, through the hinge, and into the other hinge ear; and

the hinge retention screw is threadedly engaged with the hinge pin, the hinge can be adjusted upwardly and downwardly, relative to the interior frame by rotating the shouldered hinge adjustment nut.

23. An adjustable latch for a port light having an interior frame and an innermost frame having a pane of glass retained therein that is hingedly connected to the interior frame, the latch comprising:

a latch striker plate attached to the edge of the innermost frame that is opposite an edge of the innermost frame that is hingedly connected to the interior frame;

the latch striker plate being constructed from a non-corrosive metal and having a latch stop post protruding therefrom;

a latch device;

the latch device being constructed from a non-corrosive metal and being comprised of a hollow latch tube having a lip extending into the interior at one end thereof, and also having a latch lever and a latch dog extending from the exterior surface thereof, at the end with the lip, such that the latch lever and latch dog are at a right angle to each other; a latch adjustment post having a hollow end and a threaded end; a latch locking nut; a latch tension spring; a latch tightening screw; a shouldered latch adjustment nut; a washer spring; a latch retention plate having a latch post hole and a plurality of screw holes communicating therethrough; and a plurality of retention plate screws;

the hollow end of the latch adjustment post having a threaded interior cavity, for threaded engagement with the latch tightening screw and the exterior surface of the latch

adjustment post being smooth at the hollow such that the smooth surface extends for approximately half the length of the adjustment post and the remainder of the adjustment post is threaded for engagement with the shouldered latch adjustment nut;

whereby the interior frame has at least one latch adjustment hole communicating therethrough that is complimentary to the location of the striker plate on the innermost frame; and at least one recessed area that is configured for insertion of the shouldered latch adjustment nut, the spring washer, and the latch retention plate, such that the shouldered latch adjustment nut can be inserted into the recessed area and protrude through the latch adjustment hole and rotate while still being retained in the recessed area of the interior frame, the washer spring can be placed in the recessed area adjacent to the shouldered latch adjustment nut, the latch retention plate can be placed in the recessed area such that it is level with the surface of the interior frame, and the retention plate screws are placed through the screw holes and threadedly engaged with a threaded hole communicating into the interior frame; such that when the shouldered latch adjustment nut is inserted into the recessed area so that it protrudes through the latch adjustment hole and rotates while still being retained in the recessed area of the interior frame; the washer spring is placed in the recessed area adjacent to the shouldered latch adjustment nut; the latch retention plate is placed in the recessed area such that it is level with the surface of the interior frame; the retention plate screws are placed through the screw holes and threadedly engaged with the interior frame; the locking nut is threadedly engaged with the latch adjustment post; the latch post is threadedly engaged with the shouldered latch adjustment nut; the latch tension spring is placed in the hollow latch tube; the hollow latch tube is placed on the latch adjustment post such that the latch dog rests on the latch striker plate against the latch stop post; the latch tightening

screw is inserted into the hollow latch tube and threadedly engaged with the latch adjustment post, the latch can be adjusted upwardly and downwardly, relative to the interior frame by rotating the shouldered latch adjustment nut , the latch can be secured relative to the interior frame by rotating the latch locking nut until it is in contact with the shouldered latch adjustment nut, and the latch can be tightened by turning the latch tightening screw thereby securing the innermost frame in a down position; and

the latch lever can be rotated one hundred and eighty degrees to release the innermost frame from the secured position.